AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior listings and versions:

1 to 56. (canceled).

57. (currently amended): A complex between ~~an~~ a non-naturally occurring exogenous molecule and a binding site in cellular chromatin within a cell, wherein the binding site comprises a target site and is in a region of cellular chromatin that is sensitive to a probe of chromatin structure.

58-62. (canceled)

63. (previously presented): The complex of claim 57, wherein the exogenous molecule is a transcription factor.

64. (previously presented): The complex of claim 63, wherein the transcription factor is a zinc finger protein (ZFP).

65. (canceled)

66. (previously presented): A cell comprising the complex of claim 57.

67. (canceled)

68. (previously presented): The cell of claim 66, wherein the exogenous molecule is a polypeptide encoded by a nucleic acid introduced into the cell.

69. (previously presented): The cell of claim 66, wherein the cell is a plant cell.

70. (previously presented): The cell of claim 66, wherein the cell is an animal cell.

71. (previously presented): The cell of claim 66, wherein the cell is a human cell.

72-86. (canceled)

87. (previously presented) The complex of claim 57, wherein the probe of chromatin structure is a chemical probe.

88. (previously presented) The complex of claim 57, wherein the probe of chromatin structure is an enzymatic probe.

89. (previously presented) The complex of claim 88, wherein the enzymatic probe is DNase I.

90. (previously presented) The complex of claim 88, wherein the enzymatic probe is a restriction endonuclease.

91. (withdrawn, currently amended) A method for forming a complex between ~~an~~ a non-naturally occurring exogenous molecule and a binding site in a first region of interest in cellular chromatin within a cell, wherein the binding site comprises a target site, wherein the method comprises:

(a) identifying a second region, within the region of interest, that is sensitive to a probe of chromatin structure;

(b) identifying a target site for the exogenous molecule within the second region; and

(c) introducing the exogenous molecule into the cell;

whereby the exogenous molecule binds to the binding site.

92. (withdrawn) The method according to claim 91 wherein the cellular chromatin is in a chromosome.

93. (withdrawn) The method according to claim 91 wherein the probe of chromatin structure is a nuclease.

94. (withdrawn) The method according to claim 91, wherein the exogenous molecule is a transcription factor.

95. (withdrawn) The method according to claim 94 wherein the transcription factor is a zinc finger protein (ZFP).

96. (withdrawn) The method according to claim 91 wherein the exogenous molecule is a polypeptide encoded by an exogenous nucleic acid introduced into the cell.

97. (withdrawn) The method according to claim 91, wherein the cell is a eukaryotic cell.

98. (withdrawn) The method according to claim 97, wherein the cell is a plant cell.

99. (withdrawn) The method according to claim 97, wherein the cell is a mammalian cell.

100. (withdrawn) The method according to claim 99, wherein the cell is a human cell.

101. (withdrawn) The method according to claim 91, wherein the binding site is in a coding region.

102. (withdrawn) The method according to claim 91, wherein the binding site is in a non-coding region.